52. The apparatus of Claim 48, wherein the processor is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier in the buffer to instruct the memory to store at least part of the transaction information in a buffer.

53. The apparatus of Claim 48, wherein the processor is further operable to instruct the memory to store at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment in the buffer.

59. (New) The apparatus of Claim 53, wherein the processor is further operable to generate a message to settle all of the financial transactions stored in the memory as a function of at least one of: the number of financial transactions in the memory, an aggregate value of the financial transactions in the memory, and the occurrence of a designated time.

54. The apparatus of Claim 48, wherein the processor generates the fifth message at a designated time.

REMARKS

Claims 3, 7, 47, 49 and 51 have canceled, Claims 10, 19, 24, 38 and 48 have been amended, and Claims 55-59 have been added. Claims 1-2, 4-6, 8-46, 48, 50 and 52-59 are present in the application. Reconsideration of the application, as amended, is respectfully requested.

Independent Claim 1

The Office Action rejected independent Claim 1 under 35 U.S.C. §102 as anticipated by Weber U.S. Patent No. 5,889,863. This ground of rejection is respectfully traversed, for the following reasons.

In the last paragraph on page 3 of the Office Action, the Examiner notes that several claims contain functional language (including Claim 1), and asserts that this functional language does not carry any patentable weight in distinguishing the claims from the prior art. In particular, the Examiner cites case law in support of a proposition that apparatus claims cover what a device is, and not what the device does. **However, Applicant respectfully submits that the Examiner's position is (1) contrary to the view of experts, (2) contrary to more relevant court decisions, and (3) contrary to PTO policy on this issue.** For example, a leading expert on patents states in a leading treatise that:

> A number of decisions condemn patent claims for use of "functional" language, that is, language describing an invention in terms of what it *accomplishes* rather than in terms of what it *is*. [Footnote omitted] Functional language is objectionable when it causes a claim to (1) cover more than the inventor has invented and disclosed in the specification or (2) define the invention in a vague and ambiguous manner. Under the better view today, [Footnote omitted] functional language in claims is not objectionable per se so long as it avoids these problems of undue breadth and vagueness.
> Chisum, Donald S., *Chisum on Patents*, §8.04 (Release 84, 2002).

As a courtesy, Applicants are enclosing an excerpt from this treatise, which includes the language quoted above. In making

the foregoing statement, Professor Chisum cites and relies on the case of *In Re Swinehart*, 439 F2d. 210, 169 USPQ 226 (CCPA 1971). The *Swinehart* case involved the same basic issue as the present situation, in that an examiner objected to functional language because it appeared in an apparatus claim without the word "means", but the court decided against the examiner.

The PTO conforms to the same view as the courts and Professor Chisum. In this regard, MPEP §2173.05(g) cites the *Swinehart* decision, and states that: "A functional limitation is an attempt to define something by what it does rather than what it is. . . . Functional language does not, in and of itself, render a claim improper". Similarly, MPEP §2173.01 cites the *Swinehart* decision, and states that: "Applicant may use functional language . . . or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the Court in *In Re Swinehart*, 439 F2d. 210, 169 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought".

Therefore, although the claims of the present application do contain some functional language (including Claim 1), it is respectfully submitted that, under court decisions and PTO policy, the functional language is entitled to patentable weight. Further, it is respectfully submitted that, when the functional limitations in Claim 1 are given patentable weight, Claim 1 is not anticipated by the Weber patent.

In this regard, Weber is an unusually large patent and, since the Examiner incorrectly stated that functional language is not entitled to patentable weight, the Examiner

did not provide any indication of where he believes the subject matter of the functional language might be found in Weber. In fact, since the Examiner essentially ignored the subject matter of the functional language, it appears that the Examiner was not concerned with whether or not Weber discloses this subject matter, and Applicant respectfully submits that Weber does not actually disclose this subject matter.

For example, Claim 1 recites a processor which is operable to "determine whether the financial transaction involves a micro-payment", and to then handle the transaction in one of two different ways, depending on whether or not it was determined to involve a micro-payment. As best understood, the Weber patent focuses on regular credit card transactions, and does not appear to have any disclosure relating to micro-payments, much less a disclose of handling a financial transaction in one of two different ways, depending on whether or not it has been determined to be a micro-payment. As emphasized in MPEP §2131, a claim is not anticipated by a reference unless the reference discloses each and every element recited in the claim. It is respectfully submitted that Weber does not disclose each and every element recited in Claim 1, and that Claim 1 is therefore not anticipated by Weber under §102. Accordingly, Claim 1 is believed to be allowable, and notice to that effect is respectfully requested.

Independent Claim 48

Independent Claim 48 stands rejected under 35 U.S.C. §102 as anticipated by the Weber patent. The reasons given in the Office Action are the same reasons which were given for Claim 1. This ground of rejection is respectfully traversed, for the following reasons. Claim 48 recites a processor which

is operable to determine "whether the financial transaction involves a micro-payment", and to then handle the financial transaction in one of two different ways, depending on whether or not the transaction was determined to involve a micro-payment. It is respectfully submitted that Claim 48 is patentably distinct from the Weber patent for the same basic reasons discussed above with respect to Claim 1, and that Claim 48 is therefore not anticipated under §102 by Weber. Accordingly, Claim 48 is believed to be allowable, and notice to that effect is respectfully requested.

Independent Claim 19

Independent Claim 19 stands rejected under 35 U.S.C. §102 as anticipated by Elgamal U.S. Patent No. 6,138,107. This ground of rejection is respectfully traversed, for the following reasons.

Claim 1 recites a method which includes "determining in an automated manner whether the financial transaction involves a micro-payment". Elgamal discloses the use of micro-payments, but in order to process a transaction using a micro-payment, Elgamal requires that the customer and the merchant must each have a special Electronic Money Account (EMA), and execution of a micro-payment involves a transfer of money from the customer's EMA to the merchant's EMA. The text at lines 21-31 in column 7 explains the basics of how Elgamal implements a micro-payment transaction. As best understood, the customer makes a determination of whether or not to treat the current transaction as a micro-payment, in particular by making a decision as to whether to make payment (1) using the customer's EMA micro-payment account or (2) using some other form of payment, such as a credit card. Elgamal does not appear to teach or suggest any type of automated determination

of whether or not a given transaction will be treated as a micro-payment. Therefore, it is respectfully submitted that Elgamal does not disclose each and every feature recited in Claim 19, and that Claim 19 is thus not anticipated under §102 by Elgamal. Accordingly, Claim 19 is believed to be allowable, and notice to that effect is respectfully requested.

Independent Claim 33

Claim 33 stands rejected under 35 U.S.C. §102 as anticipated by Elgamal. This ground of rejection is respectfully traversed. Claim 33 recites logic which is encoded in media and which is operable to "determine whether the financial transaction involves a micro-payment". As discussed above in association with Claim 19, Elgamal does not appear to teach or suggest any structure capable of making a determination of whether or not a financial transaction will be treated as a micro-payment. Therefore, it is respectfully submitted that Claim 33 is not anticipated by Elgamal under §102, because Elgamal does not disclose each and every feature recited in Claim 33. Accordingly, Claim 33 is believed to be allowable, and notice to that effect is respectfully requested.

Dependent Claims 10, 24, 38 and 58

Dependent Claims 10, 24, 38 and 58 each recite that the determination of whether a financial transaction involves a micro-payment is effected as a function of at least one of (1) whether the amount of the financial transaction is below a predetermined threshold, (2) a frequency of such financial transactions, or (3) an identity of the customer. As discussed above, the Weber patent does not appear to have any

teachings relating to micro-payments, and thus does not include a disclosure of one or more factors which could be used to make any determination regarding a micro-payment. As also discussed above, the Elgamal patent apparently teaches that the customer decides whether a given transaction will be handled as a micro-payment, and Elgamal thus does not disclose any automated determination of whether a transaction involves a micro-payment, much less based on any of the specific factors recited in Claims 10, 24, 38 and 58. Claims 10, 24, 38 and 58 are thus believed to be allowable over each of Weber and Elgamal, and notice to that effect is respectfully requested.

Dependent Claims 55-57 and 59

Dependent Claims 55-57 and 59 recite the capability to store a plurality of financial transactions which each involve a micro-payment, and recite that a determination to settle all of these stored financial transactions is made as a function of at least one of (1) the number of stored financial transactions, (2) an aggregate value of the stored financial transactions, or (3) the occurrence of a designated time.

As discussed above, the Weber patent does not appear to include any teachings that relate to micro-payments. Consequently, Weber does not disclose the feature of storing multiple financial transactions which each involve a micro-payment, much less the concept of initiating settlement of all of the stored financial transactions as a function of at least one of (1) the number of stored financial transactions, (2) an aggregate value of the stored financial transactions, or (3) the occurrence of a designated time.

As discussed above, the Elgamal patent does disclose micro-payments. However, with reference to the discussion at

lines 29-34 in column 7, Elgamal apparently settles each micro-payment (between the EMA accounts) while the sales transaction is occurring, rather than buffering multiple micro-payments for later settlement. (Elgamal does indicate at lines 36-44 of column 7 that a non-micropayment amount from the merchant's EMA account is transferred to the merchant's regular account at a later point in time, for example at the end of the day, but this apparently can be carried out without any stored information about each of several different micro-payment amounts). Elgamal thus does not appear to disclose the feature of storing multiple financial transactions which each involve a micro-payment, much less the concept of initiating settlement of all of the stored financial transactions as a function of at least one of (1) the number of stored financial transactions, (2) an aggregate value of the stored financial transactions, or (3) the occurrence of a designated time.

Claims 55-57 and 59 are therefore believed to be allowable over each of Weber and Elgamal, and notice to that effect is respectfully requested.

Other Dependent Claims

Claims 2, 4-6, 8-9 and 11-18 each depend from Claim 1, and are also believed to be allowable over the art of record, for example for the same reasons discussed above with respect to Claim 1.

Claims 20-23 and 25-32 each depend from Claim 19, and are also believed to be allowable over the art of record, for example for the same reasons discussed above with respect to Claim 19.

Claims 34-37 and 39-46 each depend from Claim 33, and are also believed to be allowable over the art of record,

for example for the same reasons discussed above with respect to Claim 33.

Claims 50 and 52-54 each depend from Claim 48, and are also believed to be allowable over the art of record, for example for the same reasons discussed above with respect to Claim 48.

Conclusion

Based on the foregoing, it is respectfully submitted that all of the pending claims are fully allowable, and favorable reconsideration of this application is therefore respectfully requested. If the Examiner believes that examination of the present application may be advanced in any way by a telephone conference, the Examiner is invited to telephone the undersigned attorney at (214) 953-6684.

Although Applicant believes that no additional fees are due, the Commissioner is hereby authorized to charge any fee required by this paper, or to credit any overpayment, to

ATTORNEY DOCKET NUMBER
014208.1388 (70-00-005)

PATENT APPLICATION
Serial No. 09/800,535

Deposit Account No. 05-0765 of Electronic Data Systems Corporation.

Respectfully submitted,
BAKER BOTTS L.L.P.
Attorneys for Applicant

T. Murray Smith
Reg. No. 30,222
(214) 953-6684

Date: February 6, 2003

BAKER BOTTS L.L.P.
2001 Ross Avenue
Suite 600
Dallas, TX 75201-2980
(214) 953-6500

Enclosures: Marked-Up Version of Amended Claims
Excerpt from Chisum Treatise (Title page and page 8-99)

ATTORNEY DOCKET NUMBER
014208.1388 (70-00-005)

PATENT APPLICATION
Serial No. 09/800,535

MARKED-UP VERSION OF AMENDED CLAIMS

Please cancel Claims 3, 7, 47, 49 and 51 without prejudice.

10. **(Amended)** The apparatus of Claim 1, wherein the processor [is further operable to determine] **effects the determination of whether the financial transaction involves a micro-payment as a function of at least one of:** whether the amount of the financial transaction is below a **predetermined** threshold, [to determine whether the financial transaction involves a micro-payment] **a frequency of such financial transactions, and an identity of the customer**.

55. (New) The apparatus of Claim 12, wherein the processor is further operable to generate a message to settle all of the financial transactions stored in the buffer as a function of at least one of: the number of financial transactions in the buffer, an aggregate value of the financial transactions in the buffer, and the occurrence of a designated time.

19. **(Amended)** A method for processing financial transactions, comprising:

receiving a first message indicating the making of a financial transaction, the first message including customer information and transaction information;

determining the validity of the customer information;

generating a second message indicating non-authorization of the financial transaction if the customer information is invalid;

determining **in an automated manner** whether the financial transaction involves a micro-payment if the customer information is valid;

if the financial transaction involves a micro-payment:

storing at least part of the transaction information, and

generating a third message indicating authorization of the financial transaction; and

if the financial transaction does not involve a micro-payment, generating an authorization request.

24. **(Amended)** The method of Claim 19, wherein **the** determining **of** whether the financial transaction involves a micro-payment [comprises determining] **is effected as a function of at least one of:** whether the amount of the financial transaction is below a **predetermined** threshold**, a frequency of such financial transactions, and an identity of the customer**.

56. (New) The method of Claim 26, further comprising generating of a message to settle all of the stored financial transactions as a function of at least one of: the number of stored financial transactions, an aggregate value of the stored financial transactions, and the occurrence of a designated time.

38. **(Amended)** The logic of Claim 33, wherein the logic is further operable to [determine] **effect the determination of whether the financial transaction involves a micro-payment as a function of at least one of:** whether the amount of the financial transaction is below a **predetermined** threshold, [to determine whether the financial transaction involves a micro-

payment] a frequency of such financial transactions, and an identity of the customer.

57. (New) The logic of Claim 33, wherein the logic is further operable to generate a message to settle all of the financial transactions stored in the memory as a function of at least one of: the number of financial transactions in the memory, an aggregate value of the financial transactions in the memory, and the occurrence of a designated time.

48. (Amended) An apparatus for processing financial transactions, comprising:

a communication interface adapted to be coupled to a communication link, the communication interface operable to receive information from and send information over the communication link, the communication interface further operable to receive a first message indicating the making of a financial transaction, the first message including customer information, merchant information, and transaction information;

a memory coupled to the communication interface, the memory operable to store information and a program;

a processor coupled to the memory, the processor, according to the program, operable to:

generate a validation request based on the customer information and the merchant information,

receive a validation response indicating the validity of the customer information and the merchant information,

generate a second message indicating non-authorization of the financial transaction if either the customer information or the merchant information is invalid,

determine, if both the customer information and the merchant information are valid, whether the financial transaction involves a micro-payment [by analyzing whether the amount of the financial transaction is below a threshold],

if the financial transaction involves a micro-payment, instruct the memory to store at least part of the transaction information in a buffer and generate a third message indicating authorization of the financial transaction,

if the financial transaction does not involve a micro-payment, generate an authorization request, receive an authorization response, and generate a fourth message indicating the authorization status of the financial transaction, and

generate a fifth message to settle the financial transaction based on the part of the transaction information stored in the buffer.

58. (New) The apparatus of Claim 48, wherein the processor effects the determination of whether the financial transaction involves a micro-payment as a function of at least one of: whether the amount of the financial transaction is below a predetermined threshold, a frequency of such financial transactions, and an identity of the customer.

59. (New) The apparatus of Claim 53, wherein the processor is further operable to generate a message to settle all of the financial transactions stored in the memory as a function of at least one of: the number of financial transactions in the memory, an aggregate value of the financial transactions in the memory, and the occurrence of a designated time.

§ 8.04 Functional Language in Claims

A number of decisions condemn patent claims for use of "functional" language, that is, language describing an invention in terms of what it *accomplishes* rather than in terms of what it *is*.[1] Functional language is objectionable when it causes a claim to (1) cover more than the inventor has invented and disclosed in the specification or (2) define the invention in a vague and ambiguous manner. Under the better view today,[2] functional language in claims is not objectionable per se so long as it avoids these problems of undue breadth and vagueness.

§ 8.04

[1] E.g., General Elec. Co. v. Wabash Appliance Co., 304 U.S. 364 (1938), discussed at § 8.04[1][b]; Holland Furniture Co. v. Perkins Glue Co., 277 U.S. 245 (1928), discussed at § 8.04[1][a]; O'Reilly v. Morse, 56 U.S. (15 How.) 62 (1854), discussed at § 1.03[2][b], § § 7.03[7].

Compare Caterpillar Inc. v. Detroit Diesel Corp., 961 F. Supp. 1249, 1252, 41 USPQ2d 1876, 1879 (N.D. Ind. 1996), *aff'd*, 194 F.3d 1336 (Fed. Cir. 1999) (unpublished) (quoting Treatise: "Patent claims may be drafted in 'functional' language, which 'describ[es] an invention in terms of what it accomplishes rather than in terms of what it is.' . . . Functional language is by its nature broad, and may run afoul of the Patent Act's requirement that a patent claim 'particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.' 35 U.S.C. § 112, ¶ 2 (based on 35 U.S.C., 1946 ed., § 33).").

Cf. Cultor Corp. v. A.E. Staley Manufacturing Co., 49 USPQ2d 1533 (S.D. N.Y. 1998), *aff'd*, 224 F.3d 1328, 56 USPQ2d 1208 (Fed. Cir. 2000). In *Cultor*, a patent claimed "a polydextrose bulking agent useful for incorporation in reduced calorie foods, substantially free of bitter-tasting compounds." Read in light of its specification, the patent was limited to " 'the water-soluble polydextrose prepared by melting and heating dextrose . . . in the presence of a catalytic amount of citric acid' " 49 USPQ2d at 1534. The patentee contended that the patent included, under the doctrine of equivalents, a defendant's polydextrose bulking agent, which was made without the use of citric acid. The court disagreed. The Southern New York District Court reasoned that, under the patentee's construction, the claim would be invalid because it was for "a concept or desirable result."

> "[T]o apply the doctrine of equivalents simply because defendant's product was 'free from bitter tasting compounds' would again run afoul of the principle that one can not patent a desirable result. Plaintiffs' argument brings to mind a commercial familiar to every sports fan in which a beer company asserts that its beer is 'less filing' and 'tastes great.' While the beer company may have a patented process by which it produces a beer having these qualities, its patent does not protect it from competition from other companies who produce less filing, great tasting beer by another process. Similarly, plaintiffs, who patented a process to remove bitter tasting citric acid esters from [the prior art] polydextrose, may not assert a claim of patent infringement against the defendant, who has manufactured a polydextrose using a different process, simply because the resulting product also tastes great because it is free from bitter tasting compounds."

49 USPQ2d at 1536.

[2] See *In re* Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971), discussed at § 8.04[3].

See also Home Shopping Network, Inc. v. Coupco, Inc., 1998 WL 85740, *3 (S.D. N.Y. 1998) (quoting Treatise [Elec. ed. 1998]).